

Fig. 1A

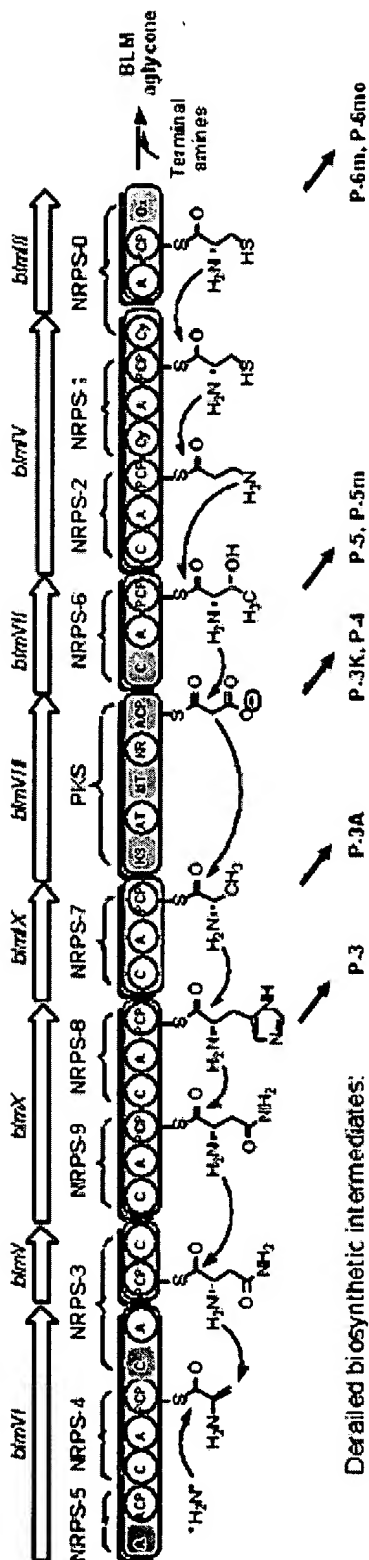


Fig. 1B

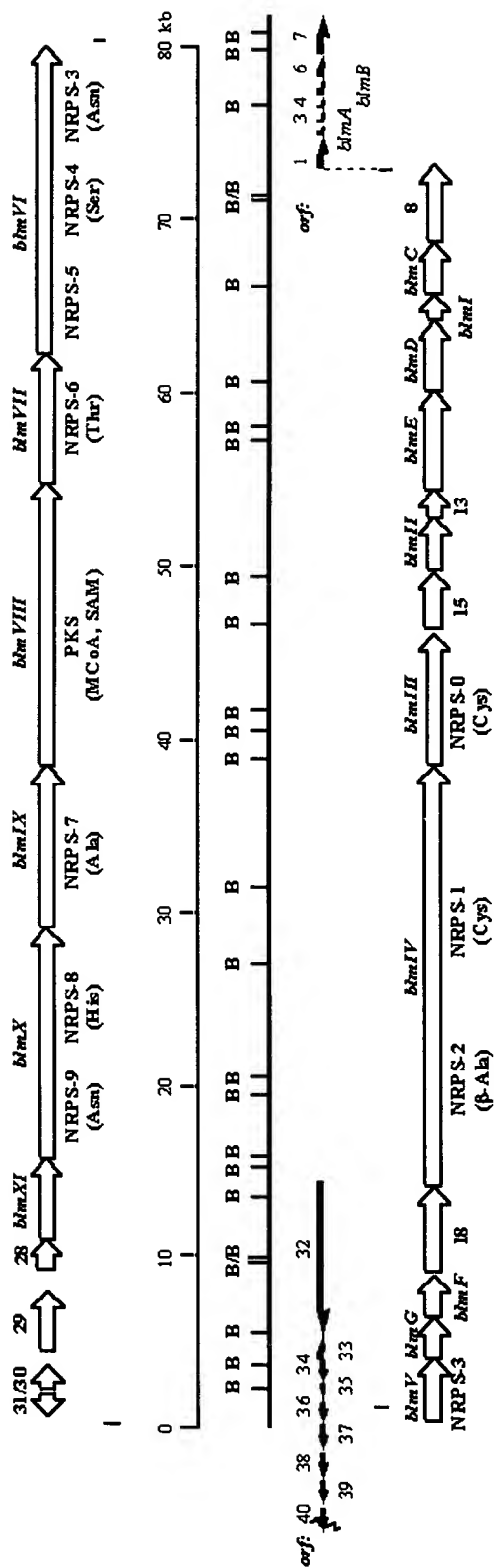


Fig. 2

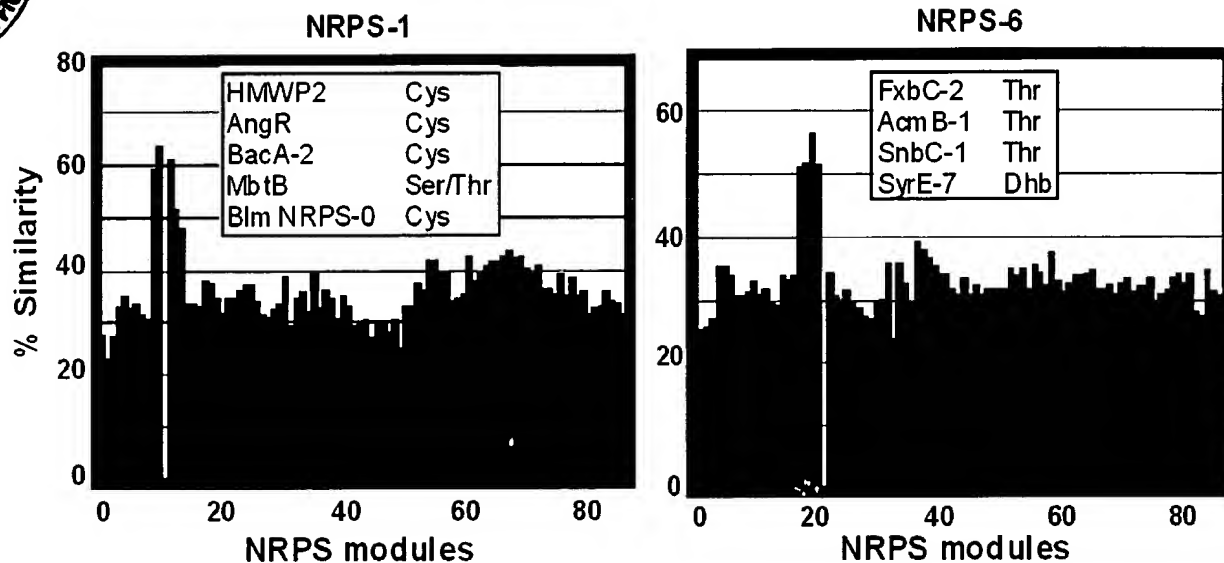


Fig. 3A

		Residues (PheA numbering) (16)							
NRPS module	Substrate	236	239	278	299	301	322	330	331
HMWP2	Cys	L	Y	N	M	S	M	I	W
AngR	Cys	L	Y	N	M	S	M	I	W
BacA-2	Cys	L	Y	N	L	S	L	I	W
MbtB	Ser/Thr	M	L	N	A	G	L	V	H
Blm NRPS-0	Cys	L	Y	H	L	G	L	P	W
Blm NRPS-1	Cys	L	Y	N	L	S	L	I	W
SyrE-7	Dhb	F	W	N	V	G	M	V	H
AcnB-1	Thr	F	W	N	V	G	M	V	H
SnbC-1	Thr	F	W	N	I	G	M	V	H
FxbC-2	Thr	F	W	N	V	G	M	V	H
Blm NRPS-6	Thr	F	W	S	V	G	M	I	H

Fig. 3B



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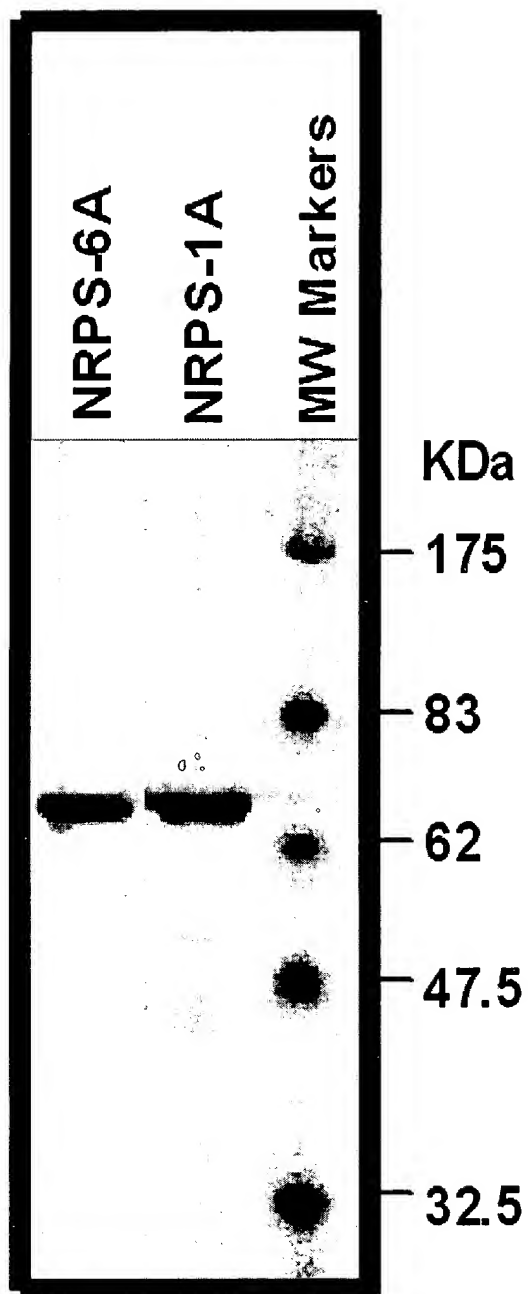


Fig. 3C

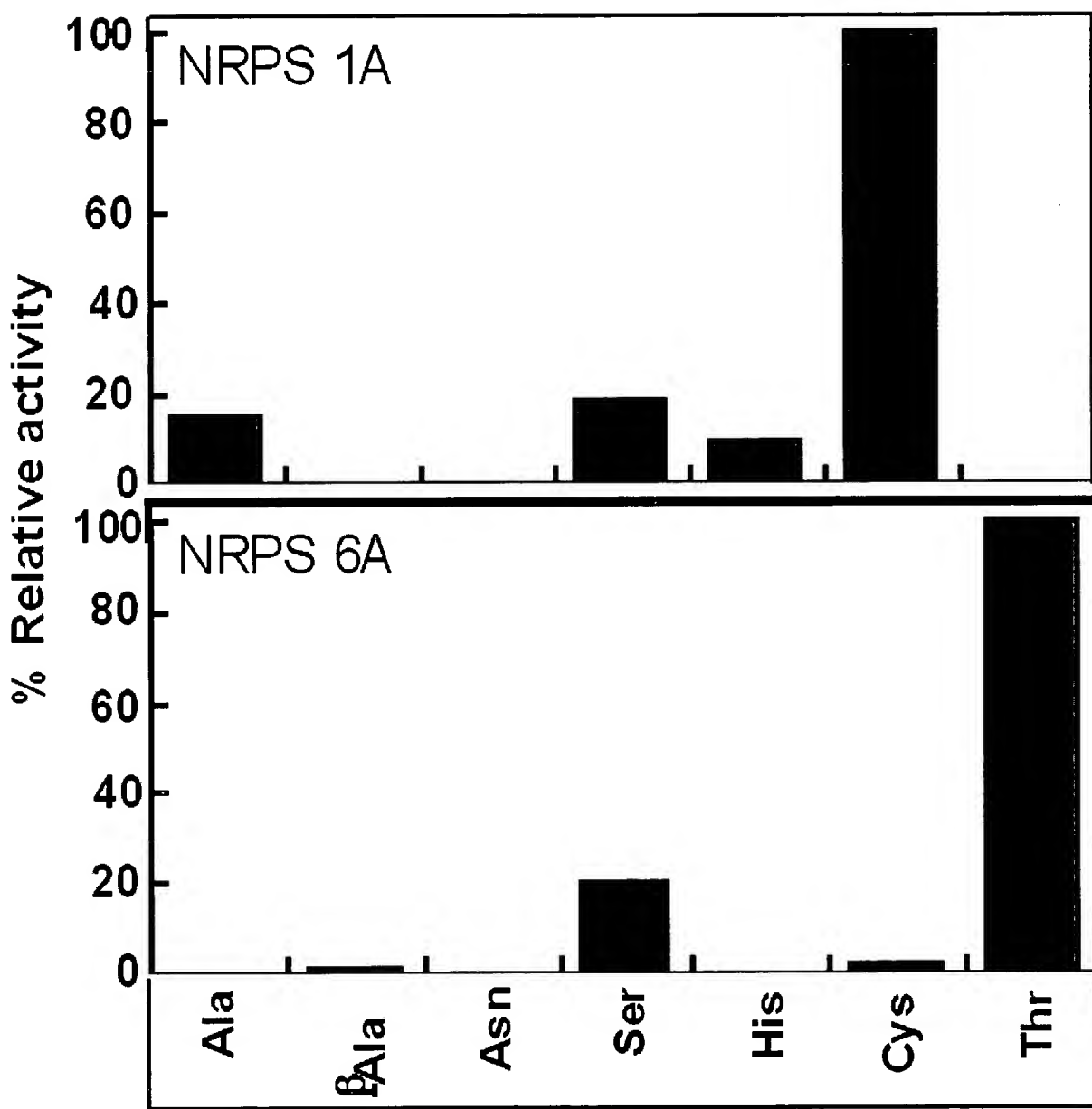


Fig. 3D

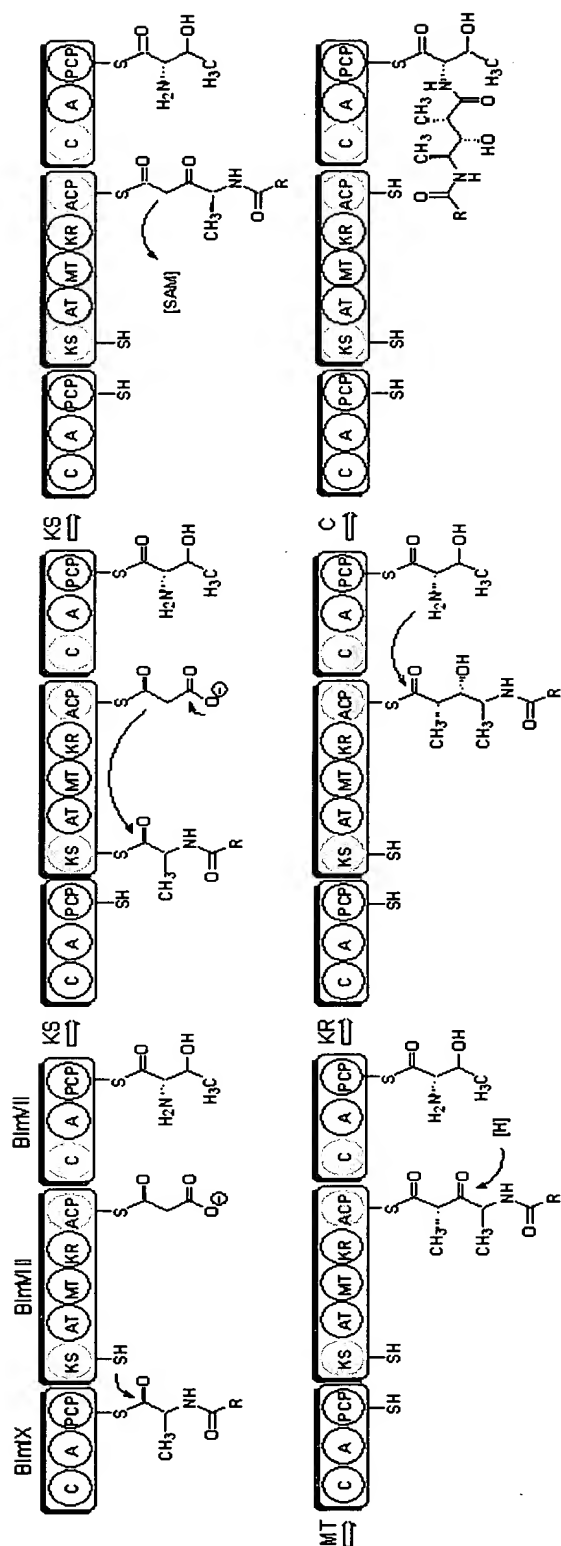


Fig. 4

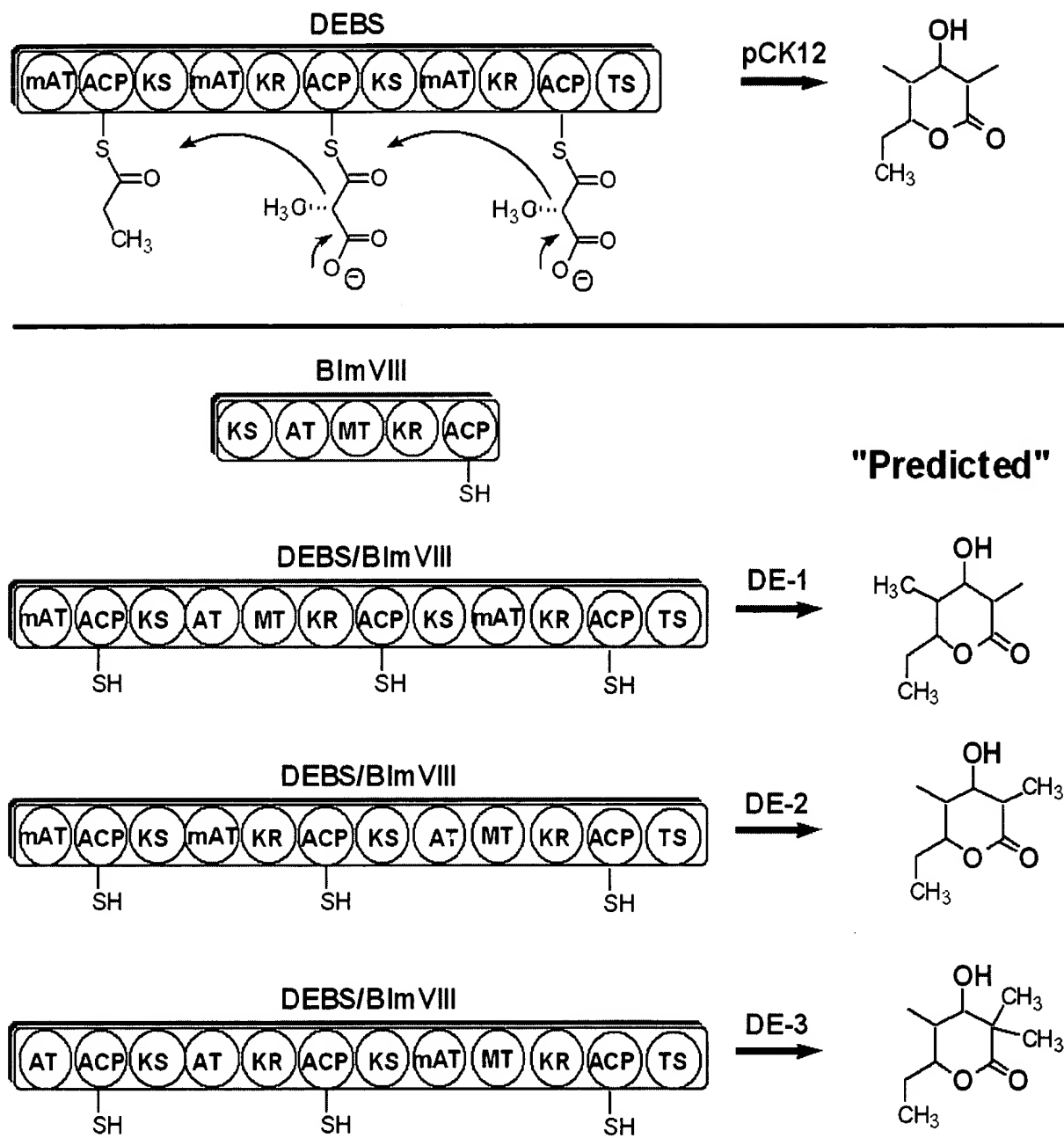


Fig. 5

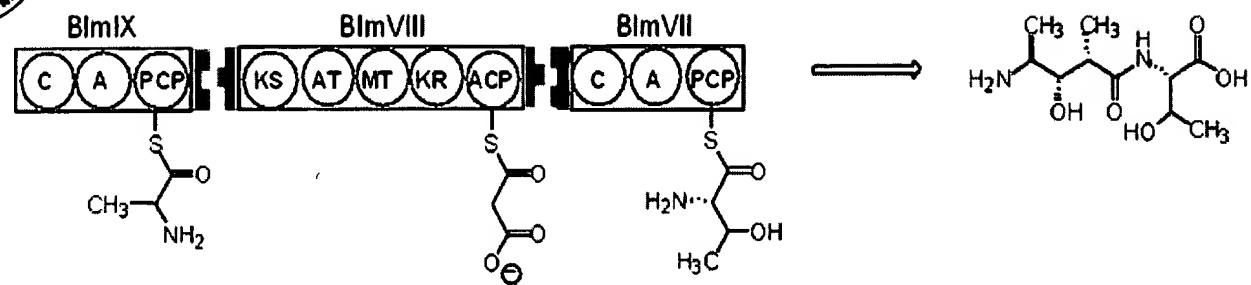


Fig. 6A

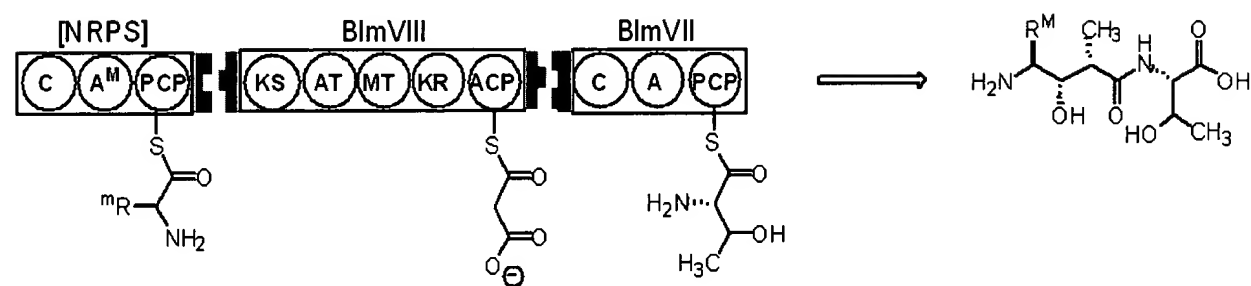


Fig. 6B

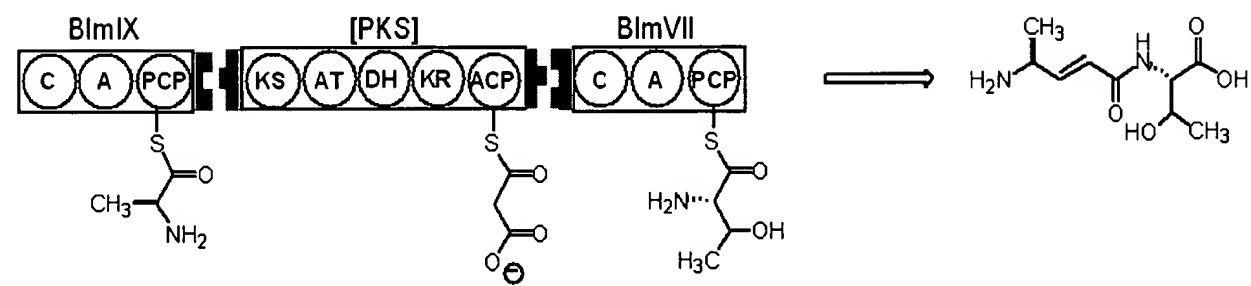


Fig. 6C

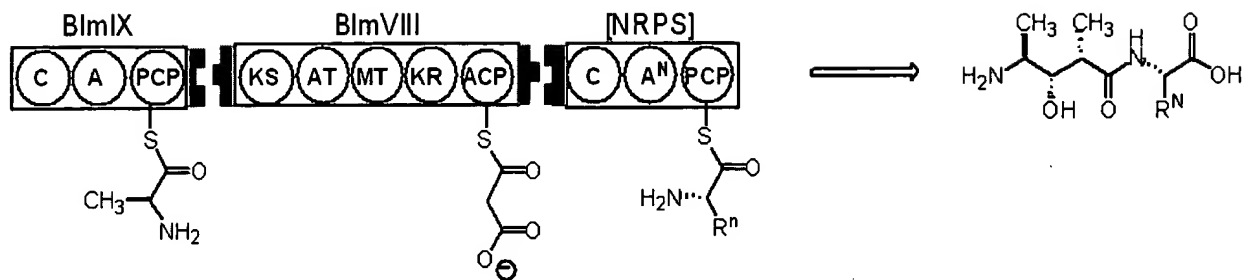


Fig. 6D

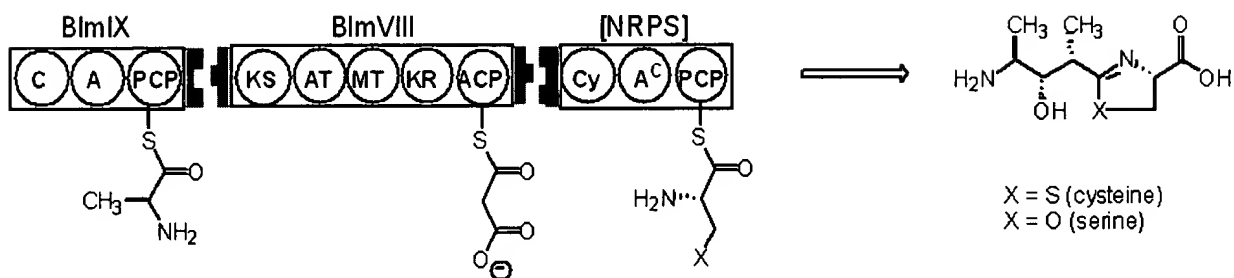


Fig. 6E

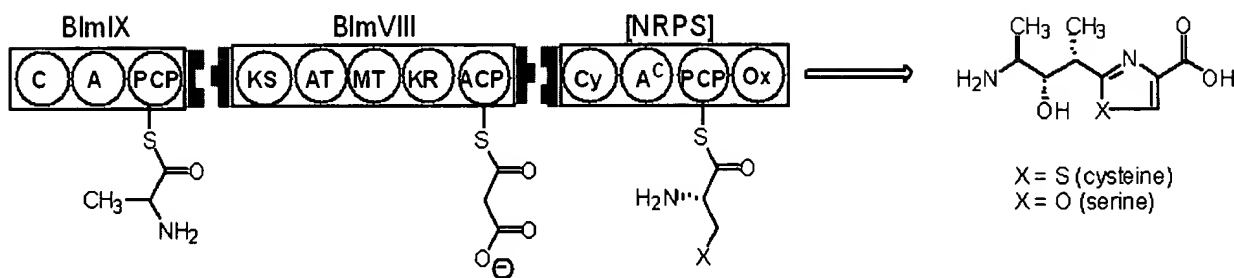


Fig. 6F



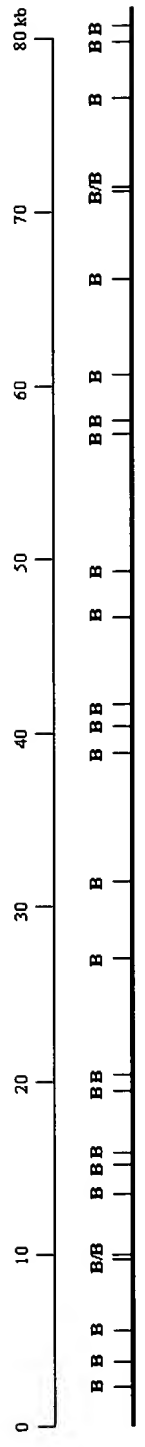


Fig. 8A

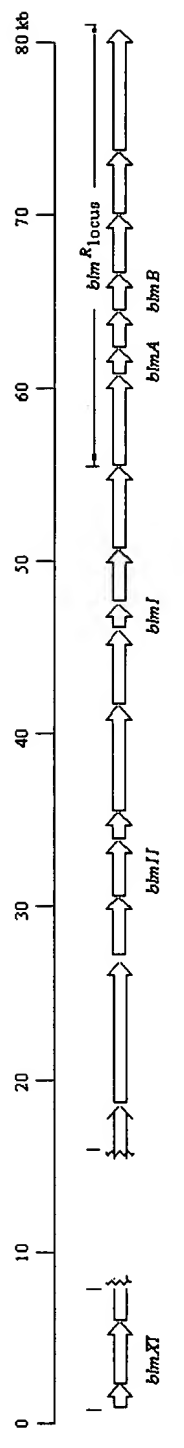


Fig. 8B



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-18 RBS
ATGAGCGCCCGGGGCGAGCGGACCCGGGCGCGGGCTCGAACGGGACATCGCGCGATCTGGCCGAGACCTCGGCAGGGACAGCGTC 93
MSAPRGEGERTRRRALERDAIWAIEATLGDSV
GGCCGCGACGAGACTTCGCGGCTGGGCGGCACTCCATCCACGCCCATCAAGATCACCAACCGGCTGGAGGAACTCGTCGACGCGCGAGCTG 186
GPHEDFAALGGNSIHAKITNRVEELVDAEL
TCCATCCGCGTCCTGCTCGAGACGGGACCCGCTGGCGGCGATGACGGGACCCAGTCCACGCCACBCTCACGGGGGAGCGGGACCGGTGA 273
SIRVLLLETRTVAGMTDHSVHATLTG E R D R *

Fig. 8C



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Grs-2 3045-I SIGTEYVAP TMLEGKLEETWKDM LGLQRM I DD FTI H L -3089
Srfa-3 960-DQLAEWIGB NEMEEETIAQIWSEV GRKQI I DD FTI H L -1004
Vir-S 557-GRSVEGRGVP TPQQEILASLFAEV GLSKV I DD FTI H L -601
Saf-B 1661-LDPGQDYLAB NELEARIAAIWEGL RRERV V DS FDL N L -1705
BlmI 1-MSAPRGERTR RALERDIAAIWAET GRDSV P ED AAL N I -45
consensus 1-i g eyvapR le ia iw evLgr rvGiHddff lGhSl- 45

Grs-2 3090-K MAVISQVHKECQTEVP LRVLE TP IQGLAKYIEETDTEQYMA-3134
Srfa-3 1005-K MTAVPH.QQELGIDL PVKLLF AP IAGISAYLLKNGSDGLQD-1048
Vir-S 602-L TRLTSRIRTVLGAELIARVDLE AP VEALAEETLEAREVRPAL-646
Saf-B 1706-L TRLATRLAATLQVQAGVRTVE HR VAAQAAHFTQATKTHQAH-1750
BlmI 46-H IKITNRVEELVDALSL IRVLL TR VAGMTDHSVHATLTGERDR-90
consensus 46-kAmrv srV l ev vrvlfe pTvagla i g t -90

Fig. 9

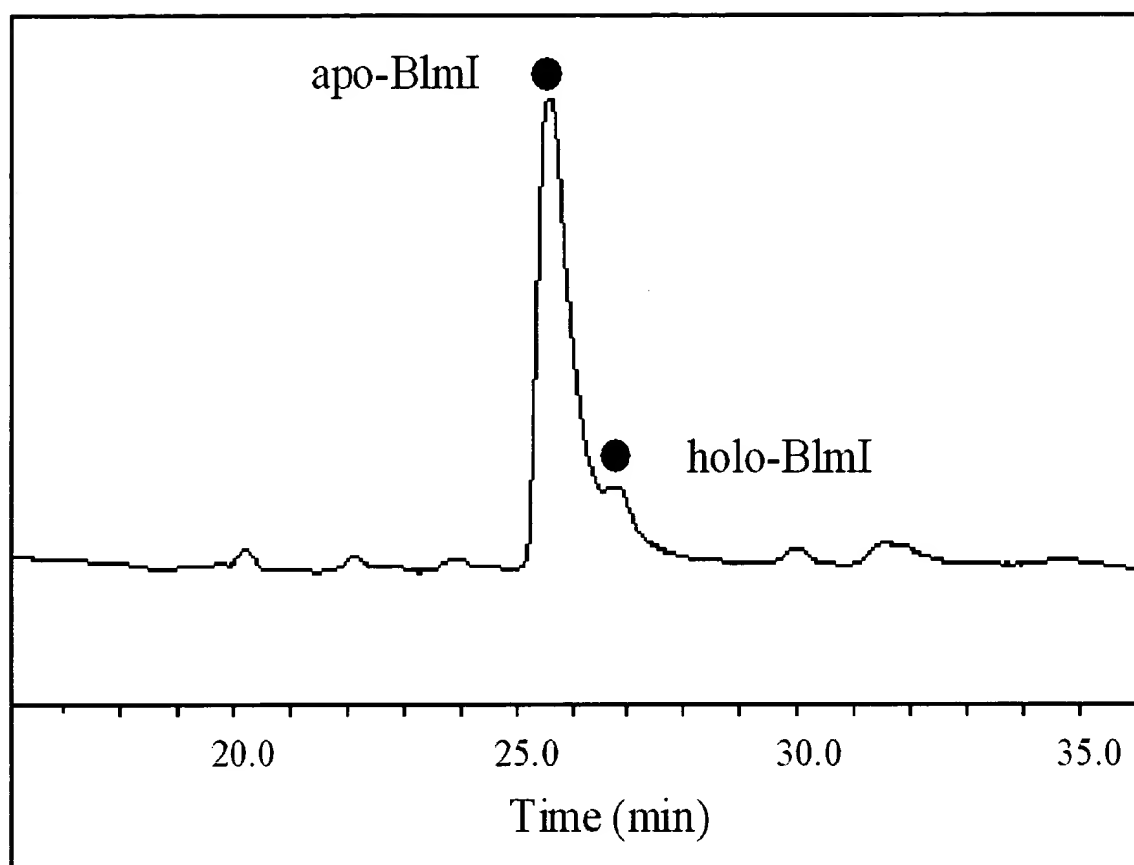


Fig. 10A



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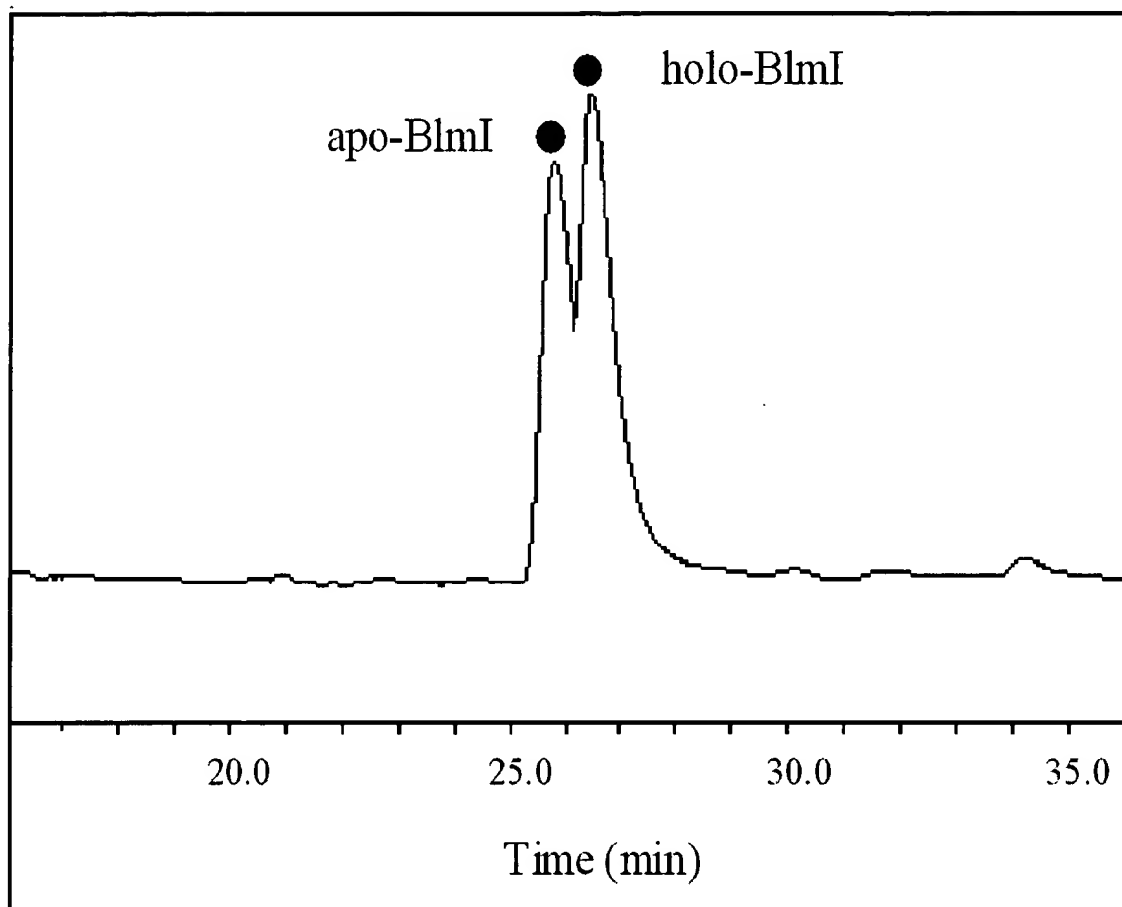


Fig. 10B

Nonreiterative Type I Modular Protein Template

Fig. 11A
PKS

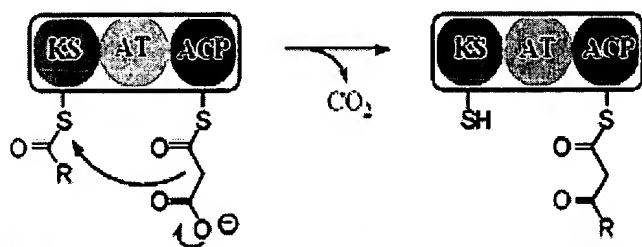
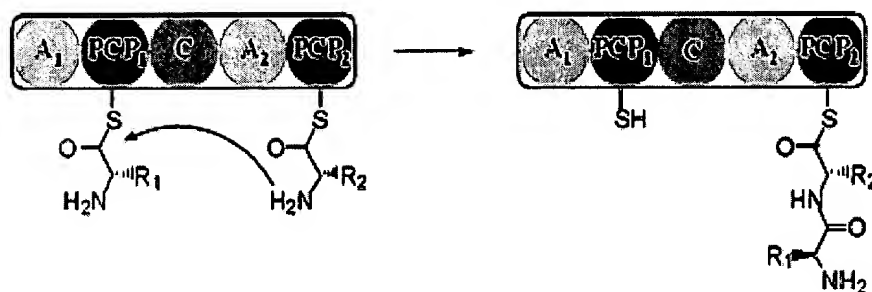


Fig. 11B
NRPS



Iterative Type II Protein Complex

Fig. 11C
PKS

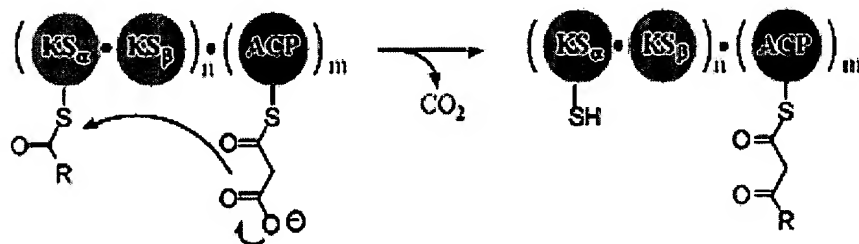
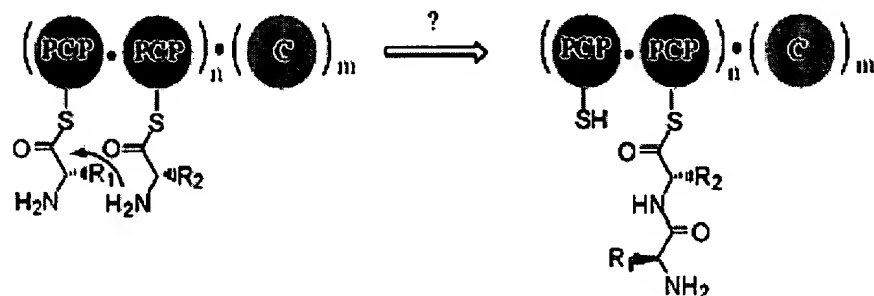


Fig. 11D
NRPS





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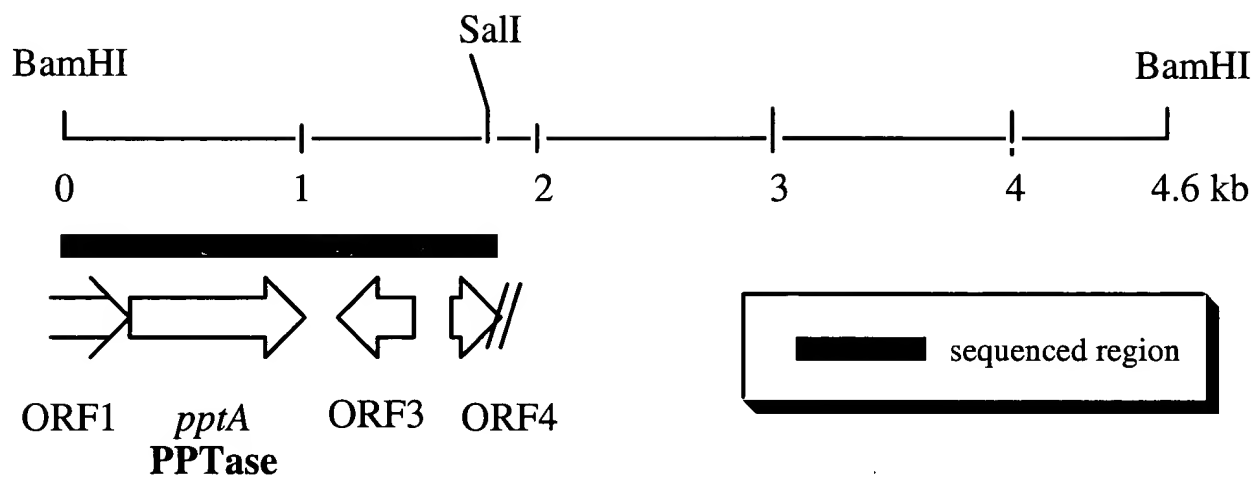


Fig. 13

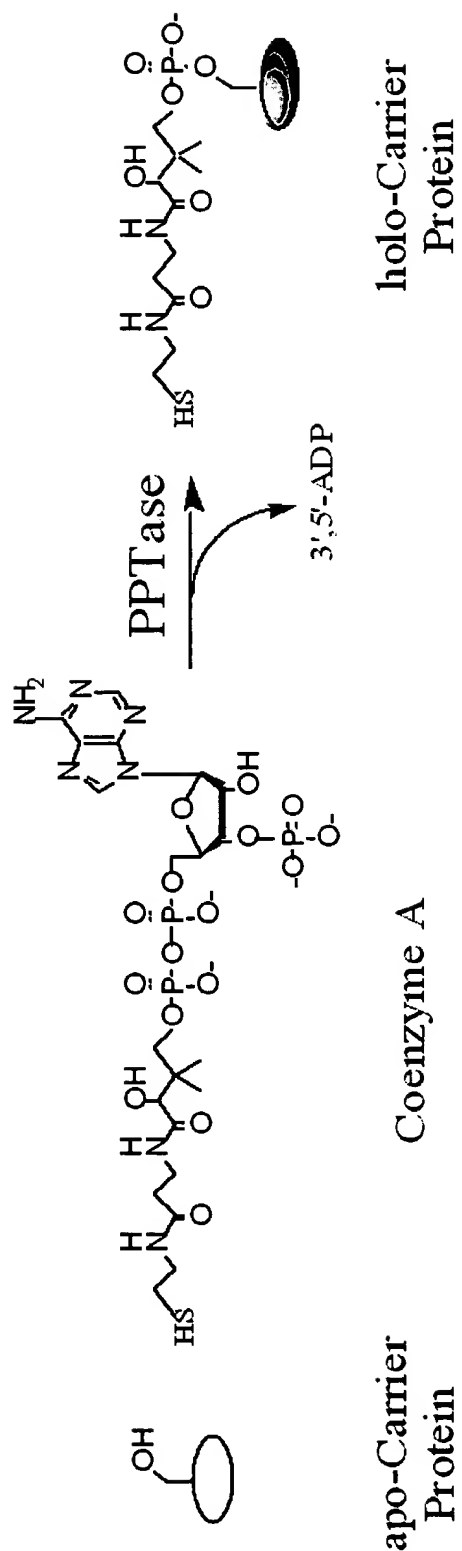


Fig. 12